



Plugin

- Manual Compilation
- Game Logic

Maps

- Plains (Tutorial)
- Nether (Hard)
- Cherry Blossom (Easy)
- Cityscape (Medium)
- Current Prototype
- Next Steps & Considerations





Plugin – Manual Compilation

- Step 1: Compile the plugin (IntelliJ)
 - Open the project in IntelliJ, select "File", "Project Structure", then under "Project Settings", select "Artifacts"
 - Create a new artifact with the plus sign (+) at the top-left of the window, selecting it as a JAR file, also "From modules with dependencies", and the select OK at the pop-up
 - Have the output directory of the artifact build be the server's plugin folder
- Step 2: Build the plugin into the server
 - Once the build location is correct, go to the top-left of the screen and select "Build" and "Build Artifacts".
 - On the pop-up, it will show the artifact created. Select "Build" and wait.
- Step 3: Run the server
 - To ensure the plugin is active, type "/plugins", in which it should display the plugin.

Plugin – Game Logic

Commands

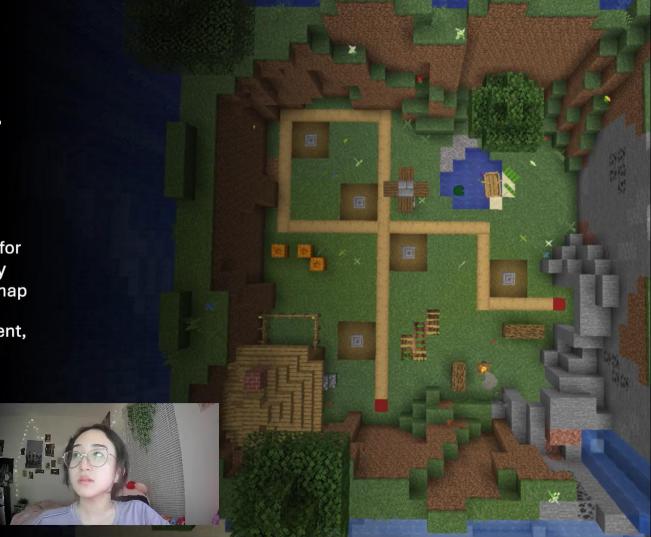
• The player have access to Hub and Party commands, allowing them to access the game mode and invite their party members to play the Tower Defense.

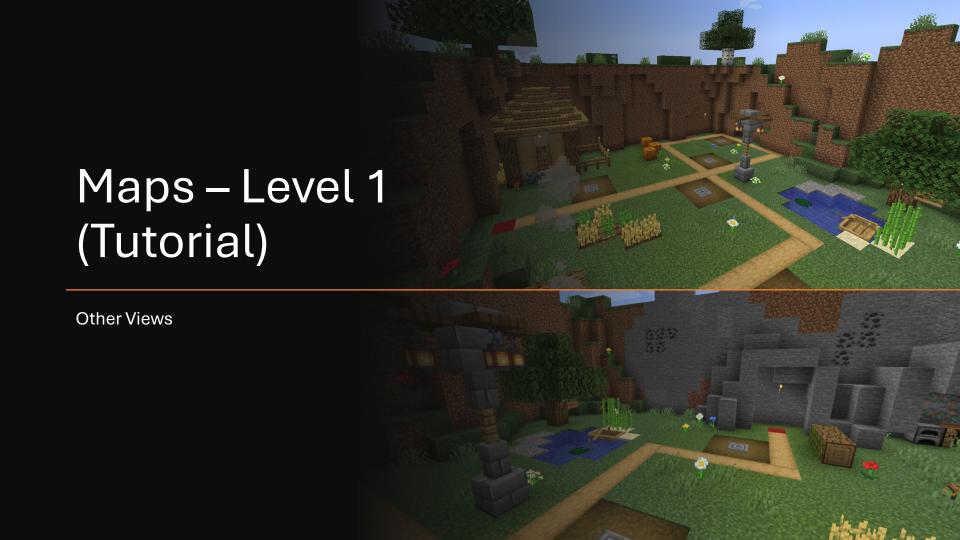
Gameplay

- Players
 - The players can combat mobs directly and build or upgrade towers with coins
- Mobs
 - Mobs will follow the designated path and if enough reach the end, the party will lose the game.
 - Mobs will provide coins to the players upon death, distributing them to all players equally
- Towers
 - Towers can be placed with a spawn egg that checks to see if you have enough coins. location and will automatically attack mobs within range
 - Towers can be upgraded with coins to improve their stat-line
- Rounds
 - There will be a set number of rounds that will generate mobs depending on both the round number and map.

Maps – Level 1 (Tutorial)

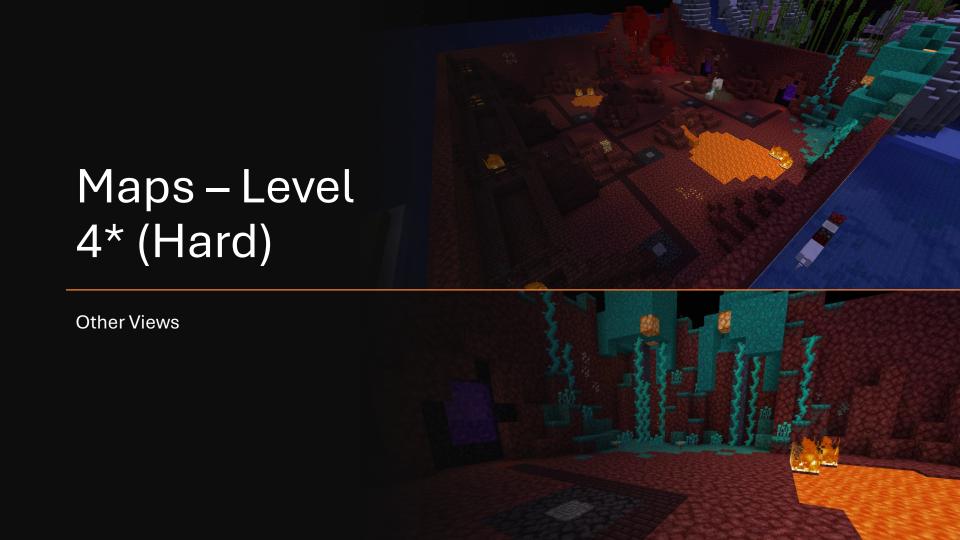
The chosen biome of inspiration for each level is meant to intuitively reflect its difficulty. The tutorial map utilizes the Plains biome for a recognizable "default" environment, which helps with introducing the gameplay. The pathing is the simplest of all maps, with no obstacles (visual blocks) on the ground.







The chosen biome, the Cherry Blossom Garden, provides a visually stunning and serene environment complimenting the map's extended length while maintaining accessible difficulty and granting extended gameplay. The landscape is characterized by vibrant pink cherry blossom trees, transitioning from the foundational tutorial level to more complex challenges. The paths are designed to meander gracefully through the garden, allowing players to appreciate the scenery as they combat incoming mobs.

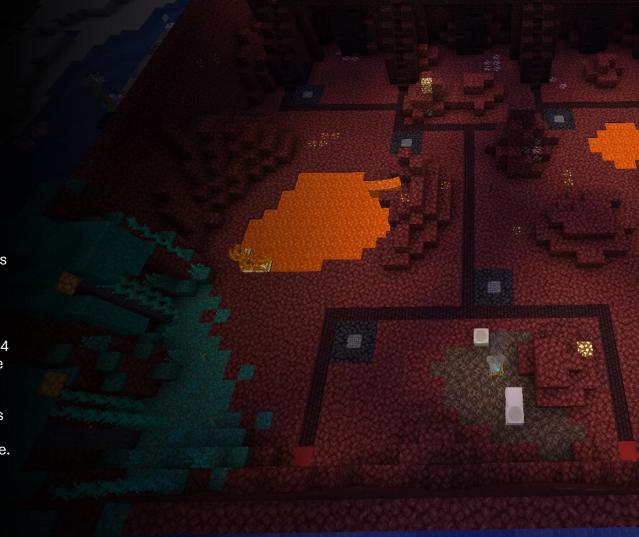




In this Cityscape map, the players will begin experiencing challenges from the map itself, with its towering skyscrapers, narrow alleyways, and hidden corners. The Cityscape is designed to obstruct views and create blind spots, forcing the players to be attentive to the incoming mobs' locations and their current locations as they may pass the player's sight.

Maps – Level 4* (Hard)

Using the Nether dimension for this round's setting is meant to represent this level's higher difficulty, and a variety of Nether biomes are featured in the map. The pathing is complex and there are various obstacles on the floor to move around while attacking mobs. There are 4 different points where mobs can emerge from, with 2 potential points they can reach to end the round. Players must divert both attention and resources. This might be the final level, but it is unconfirmed until all maps are complete.



Current Prototype



Planned Gameplay Features

Tower Variety

We plan to add several more tower types, increasing the replayability and allowing for creativity in gameplay

Player Power

- Since Minecraft is a fps as opposed to usual top-down tower defense games, we want the player to have a large role in your success
- Add an upgrade path for weapons, starting at a wooden stick and upgrade all the way up to netherite
- Add enchantment upgrades, including a possible custom enchantment that will slow down mobs on hit
- Allow for the purchase of some consumables, like wind charges or fire charges that will have different functions in game

Mob additions

Add more mob variety, as well as support mobs i.e. killer rabbits that make nearby zombies move faster

Next Steps & Considerations



User Friendly

Ensure that game elements are clear to the player

Bug Testing, Playtesting, & Feedback

- Ensure game logic functions correctly
- Test and update Game balance based on difficulty of mobs and waves on each map
- Consider tower balancing regarding base stats, upgrades, and tradeoffs between differing types
- Adjust economy management regarding mob coin distribution and tower costs for building and upgrades
- Improve the game mode based on feedback received

Documentation

Set-up, commands, permissions, config, etc



